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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,622	03/02/2004	Henry R. Halperin		3149

7590 03/08/2007  
Henry T. Halperin  
7708 Crossland Road  
Pikesville, MD 21208

EXAMINER
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ROZANSKI, MICHAEL T

ART UNIT	PAPER NUMBER
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3768

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/08/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/791,622

Applicant(s)

HALPERIN ET AL.

Examiner

Michael Rozanski

Art Unit

3768

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/27/2004</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Drawings*

The drawings are objected to because figures 1 and 2 contain handwritten element labels. In addition, label "FIGURE 7" should be changed to "Figure 7" for consistency. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-14 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 5, 7, 11-13, and 15-17 of U.S. Patent No. 6,701,176. Although the conflicting claims are not identical, they are not patentably distinct from each other because '176 include a method of performing an imaging therapy with the steps of placing a subject in a magnetic field, introducing an antenna into the subject, acquiring a 1<sup>st</sup> MR image from the antenna, acquiring a 2<sup>nd</sup> MR image from a surface coil, and combining the images to produce a composite image. Furthermore, the method comprises generating RF ablative current from the guidance of the composite image, measurement of the electrical potential, and introducing an MR contrast agent for image enhancement.

Claims 15-20 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 18, 22, 23, and 25-28 of U.S. Patent No. 6,701,176. Although the conflicting claims are not identical, they are not patentably distinct from each other because '176 include a system with an imaging procedure that is capable of performing the method as described above.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-6, 12, 14, 15, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by **Acker** (US 5,833,608).

***Claims 1-6, 12, 14, 15, and 20:*** Acker discloses a magnetic position and orientation determining system capable of performing the steps of:

placing a subject in a main magnetic field 32

introducing into the subject's brain a combination imaging and therapeutic probe, the probe including a magnetic resonance imaging antenna and an electrical energy application element (col. 9, lines 44-67);

acquiring a (plurality of) first magnetic resonance image(s) from the antenna of the combination probe, which may include electrical devices for delivering electrical energy to the surrounding tissue (col. 9, lines 44-67);

acquiring a (plurality of) second magnetic resonance image(s) from a surface coil (col. 8, lines 44-60; col. 11, lines 3-25);

combining the respective first and second magnetic resonance images to produce a composite image (col. 14, lines 6-53);

positioning the combination probe within the brain with guidance from the composite image in the X, Y, Z coordinate system.

Application of the disclosed system is directed to brain therapy (col. 21, lines 8-53). The mapped physiological data superposed on an image of a body part (i.e. the brain) may be mapped (i.e. locate an anatomical target) alone in pictorial form or otherwise (col. 25, lines 7-9). Furthermore, the images are generated in real time (col. 25, lines 7-16) wherein the acquisition time is capable of being at least 10 frames per second (col. 14, lines 6-53).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7-11 and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Acker** in view of **Eggers et al** (US 5,928,159).

**Claims 7-11 and 16-19:** Acker discloses all features of the current invention, but do not specifically disclose a diagnostic electrode or application of RF ablative current. In the same field of endeavor, Eggers et al. teach of a measurement and treatment probe 20 that includes a plurality of electrodes for applying an RF voltage to the biological tissue (col. 4, lines 1-9). It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate the teachings of Eggers et al. to that of Acker in order to improve the efficacy of the medical procedure involving the characterization and treatment of tumors (col. 2, lines 11-17).

6. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Acker** in view of **Rubinsky et al** (US 5,706,810).

**Claim 13:** Acker discloses all features of the current invention, except introducing an MR contrast agent to enhance the images. In the same field of endeavor, Rubinsky et al. teach of a method and apparatus for magnetic resonance imaging-assisted cryosurgery wherein contrast agents may be used for such purposes (col. 5, lines 1-15). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Rubinsky et al. determining the efficacy of the cryosurgical treatment (col. 4, lines 56-60).

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 5,864,234 to Ludeke discloses forming composite MR images from different MR receiver sources.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Rozanski whose telephone number is 571-272-1648. The examiner can normally be reached on Monday - Friday, 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eleni Mantis-Mercader can be reached on 571-272-4740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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